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# **THE IMPACT OF COMPUTER MEDIATION ON GROUP AND INDIVIDUAL PREFERENCES IN SOCIAL DILEMMAS**

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## **ABSTRACT**

As sensitivity to social issues increases, corporations face a particularly difficult challenge when confronted with trade-offs between corporate self-interest and the public interest. The difficulty of resolving these social dilemmas in groups is amplified by value conflicts across group members and also by conflicts between an individual's personal values and those of the corporation. This study investigates the impact of group support systems (GSS) on persuasive processes and decision outcomes associated with social dilemmas. The theoretical foundation for the study is the literature on group polarization, in particular the theories of persuasive arguments and social comparison (Isenberg 1986).

MBA students were randomly assigned to 32 six-person, same-gender groups, which were then randomly assigned to one of four experimental conditions: computer-mediated, structured-discussion with (1) anonymous inputs and (2) inputs identified by participant; face-to-face, identified inputs with (3) structured discussion mimicking the structure of the GSS and (4) no imposed meeting structure. All but one subject per group role-played corporate-oriented members of the board of directors (majority opinion); one subject per group was a public representative (minority opinion). The experimental task (adapted from Armstrong 1977) was based on an actual case involving whether to withdraw a potentially dangerous but highly profitable antibiotic from the market. The board of directors was to select a course of action from among five options ranging from recalling and immediately destroying the drug to taking legal, political and other actions against those who would call for a ban of the drug. The task is veridical, since in the U.S. directors are mandated by law to assume roles on behalf of stockholders that may be inconsistent with their own personal beliefs.

The dominant finding is that in the face-to-face groups on average the personal preferences of both majority and minority board members shift from a public-interest to a corporate-interest orientation, whereas in the computer-mediated groups no significant shift in personal preferences occurs. These results are predicted by social comparison theory. There are no important differences, however, in decision outcomes between anonymous and identified input within the two computer-mediated conditions. There are no differences in the uniqueness of arguments generated in the computer-mediated versus face-to-face groups. Hence, persuasive arguments theory (interpreted as argument uniqueness rather than argument repetition) is not predictive in our study. Since face-to-face groups generate approximately twice as many total arguments

as computer-mediated groups, the results are consistent with persuasive arguments theory interpreted as total number of arguments rather than number of unique arguments. There are significant differences across conditions, roles, and gender for the affect variables. For the most part, these are consistent with earlier GSS research. Several process differences between mediated and face-to-face conditions are observed. A more complete discussion of the preliminary data analysis appears in Melone et al. (1993, revised 1994).

## REFERENCES

- Armstrong, J. S. "Social Irresponsibility in Management." *Journal of Business Research*, Volume 5, September 1977, pp. 185-213.
- Isenberg, D. J. "Group Polarization: A Critical Review and Meta Analysis." *Journal of Personality and Social Psychology*, Volume 50, 1986, pp. 1141-1151.
- Melone, N. P.; McGuire, T. W.; King, R. C.; Hartman, A.; Hartzel, K. S.; Papageorgiou, E.; and Gerwing, T. A. "The Effects of Computer Mediation on Majority and Minority Influence and Social Responsibility in Group Decisions." CMU-GSIA Working Paper #1993-16, Carnegie Mellon University, 1993 (revised University of Oregon, Summer 1994).